

The Lamp without a Genie:

Using the Internet for development without expecting miracles

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Abstract

The initial euphoria that saw new information technologies as a panacea to solve development problems is now over. More cautious and critical perspectives are emerging, as lessons are drawn from experiences in the field. While the Internet can be used as a powerful tool for human development, it is today clear it does not constitute an automatic remedy. One key factor that while access to the technology is important, its meaningful use and social appropriation to solve development problems is far more important. Much effort has been dedicated to set up public and community access to the Internet, through telecentres and related activities. While telecentres have the potential to increase access to the new technologies and make them useful to improve education, foster citizens' participation and open new economic opportunities, ongoing experiences show that far more than setting up computers and connecting them to the Internet is required. This paper, informed by the research and activities supported by the International Development Research Centre in Latin America and the Caribbean, offers a critical perspective on the use of the Internet for development, and the contribution of telecentres in this process.

ICTs do not take place in a vacuum

The adoption of Information and Communication Technologies (ICTs) for development takes place in complex systems of power and inequality in society. ICTs can further exacerbate these existing inequities, or, given the right conditions, help to alleviate them. But alas, there is no magic formula to concoct the right conditions that make ICTs meaningful for human development. Rather than trying to draw a blueprint for success, we need to be ingenious and learn from the shared experiences in the field, creatively adapting the solutions that work from one context to another.

Before analyzing some of the myths and assumptions that underlie the vision of ICTs as a panacea for development, it is important to state why we focus on the Internet as the key ICT tool for development. Other communication technologies such as radio or television enable predominantly one-to-many forms of communication (despite marginal uses of participatory video and the popularity of community radio stations, which have been well documented in the

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development literature), and the phone remains mostly a one-to-one medium of communication (despite the existence of phone conferencing and fax broadcasting). The Internet, on the other hand, and particularly its most popular applications --e-mail, the world wide web, newsgroups and chat rooms—has opened an unprecedented opportunity many-to-many forms of communication, with the potential of changing the nature of interactions in the public sphere. In this way, ICTs are “important networks of exchange that can either promote or inhibit many-to-many communication in the public sphere”². This definition is particularly relevant to understand the role of ICTs in developing countries, as it pertains to the complex set of factors and the multitude of effects that can be derived from their use.

In this paper we will use the experiences of telecentres as the lens to observe the promise of ICTs for development. If ICTs are to make a difference beyond the elites and large businesses, telecentres constitute the only way in which large sectors of the population can access and use ICT resources and appropriate them to improve their living conditions. Through the experience of telecentres in Latin America, we suggest the need to re-define the initial conceptions of ICTs for development, and to introduce a more socially oriented view of the role of the Internet and its potential in the region.

The assumption of the intrinsic benefits of the new information economy

1. “Growth is for all”: It is often believed that in today’s new economy the limits to growth will be surpassed, and technological change will improve the global environment of development benefiting everyone, no matter what their initial circumstances may be³. However, the growing digital divide between North and South and within countries and regions, as well as the ease with which economic instability spreads across the borders, evidences the need to re-think and re-evaluate the role that ICTs play in terms of economic growth. The assumption that technology leads to economic growth and stability doesn’t correspond with a highly volatile economy in the information age, where “instantaneous computer-mediated financial markets are far more destabilizing than earlier, less technologically advanced systems.”⁴

2. “E-commerce for all”: Latin America is seeing a rapid growth of e-commerce as a new way of doing business, with profound social and economic implications for the region. “Although retail sales or on-line auctions over the Internet are still rare in Latin America, business-to-business transactions, especially among large businesses, are starting to turn to electronic communication support in an increasingly globalized economy”⁵. In Latin America, traditional structures of production and exports of manufactured and primary goods are still predominant, and the idea of a market based on the digital production, and in some cases digital delivery of products, faces great challenges. On the other hand, issues related with taxation, consumer protection and intellectual property rights are yet to be resolved⁶ at the

² Wilhelm Anthony, *“Democracy in the Digital Age, Challenges to Political Life in Cyberspace”*, New York and London, Routledge, 2000 p.8.

³ Hewitt de Alcantara, Cynthia, *“The Development Divide in a Digital Age, An Issues Paper”*. Technology, Business and Society, Programme Paper Number 4, August 2001. p. 6.

⁴ Op cit, p 8.

⁵ Ibid.

⁶ Ibid. p 10.

national and international levels, and the regional infrastructure to provide the physical delivery of goods is still very incipient, and especially costly for small businesses. The importance of the informal economy in Latin American countries and the predominance of small and medium enterprises, are key factors that have important repercussions on the extent to which e-commerce could effectively be an engine of economic growth and development in the region.

3. “E-jobs for all”: Although the ILO has manifested to be positive about the effect of ICT on employment⁷, and despite the expected boom of “telework” and other back-office tasks facilitated by the Internet, the ultimate implications of the relocation of service sector positions to developing countries are still unknown. The experience of some companies has shown that the quality of the e-jobs is very low, and consequently, their ability to contribute in a meaningful way to improve the living and conditions of Third World societies is limited. Women employed with low wages constitute the majority of the tele-workers, often working under stressful conditions and restricted labour rights, correlated with the characteristics of an informal sector setting. In addition, the number of workers doing these kinds of jobs is still a very limited in Latin America, where training and education are yet to be improved and expanded to all sectors of the population.

Telecentres in the information economy

There is little evidence of telecentres being meaningfully used by tele-workers, or of telecentres becoming important actors in e-commerce transactions, online procurement or other opportunities in the information economy (for obvious reasons of limited disposable income and use of credit cards in marginalized communities). Nonetheless, there is growing evidence of marginal improvements in the economic situation of staff or users: individuals learn to use computer applications and find better jobs with the new skills (which poses a problem to the staffing of telecentres, as good operators frequently find better pay elsewhere), or they manage to make small profits with the sale of goods and services prepared at the telecentre, the most frequent of which is CDs with (illegally) downloaded music.

In some cases, as in Esmeraldas, Ecuador, a small telecentre experience with street youth grew into a regional Internet Service Provider (Esmenet) with several Internet cafes in the city. Scott Robinson (also in this volume) suggests the use of telecentres linked to microbanks for the low cost transfer of remittances, coupled with a set of generic financial, communication, education, informational and even e-commerce resources⁸. Remittances sent by relatives working abroad (the typical case of Mexican seasonal labourers throughout the United States, Dominicans in New York, Cubans in Miami or Haitians in Montreal) constitute important sources of foreign exchange throughout Central America, the Caribbean and elsewhere in Latin America. Financial institutions charge savage commissions, and expectant families pay dearly for phone calls to ask “is the money coming?”. With President Fox’s attention to the

⁷ Knowledge workers, those who generate ideas and transmit these electronically as “intangible” or “immaterial” products, gain particular advantage in the networking economy. Yet there is a knowledge component to all work, and the illiterate farmer can also gain from greater access to information. Nor does networking necessarily mean an increase in knowledge or skill requirements. ILO World Employment Report, <http://www.ilo.org/public/english/support/publ/wer/index2.htm>

⁸ Robinson, Scott, “*Rethinking Telecenters: Knowledge Demands, Marginal Markets, Microbanks and Remittance Flows*”, on The Internet Magazine, Vol 6, No 2 (Fall/Winter 2000). <http://www.isoc.org/oti/articles/0401/robinson.html>

issue in Mexico and Central American governments taking notice, Robinson's pioneer idea may have a chance after all.

The assumption of better education through technology

The rapid expansion of ICTs has been often wrongfully associated with an automatic improvement on the levels and quality of education. High expectations on the potential impact of ICT tools like the Internet have led many to believe in them as magic solutions for the wide range of problems that characterize the education sector in developing countries. The opinion of the finance Minister of a Latin American country regarding a program of new technologies in the public schools of Costa Rica, clearly reflects the general misperceptions about the role of ICTs in education: "I love this program of yours. It really makes a substantive contribution. Machines are installed, the children learn, you eliminate teachers and reduce Government budget, and the best of all, strikes are eliminated...A perfect case of State restructuring!"⁹

The technocentrist tendency assumes that the installation of machines is enough to assure an improvement of education levels and to overcome the low quality of teachers and teaching tools available, ignoring the crucial distinction between access of information and knowledge. This last one is related to the capacity of applying, appropriating and effectively using that information, and it implies an emphasis on the development of the individual as a whole, going far beyond the sole transmission of computer skills to the development of abilities that allow users to be active rather than passive, to better understand the benefits and implications of the digital culture, as well as to develop creative and cognitive abilities that facilitate their insertion into the labour market¹⁰.

There are a variety of challenges to overcome in order to effectively implement Internet to the education field, and that in the practice, financial, technological and logistic limitations are strengthened by weak pedagogic conceptions and proposals¹¹. Thus far, the benefits of the Internet for education have only been evident for the minority of privileged students that are able to afford and to have access to online education opportunities. The inclusiveness of the digital education is, in fact, very limited, especially taking into account the great disparities that still prevail between urban and rural communities in developing regions, as well as the structural lack of means of access and training opportunities for the great majority of the population.

Telecentres and new opportunities in education

Despite the fact that the lack of educational coverage is still a key issue in the development agenda of a number of Latin American governments, Internet-based distance education offers a new educational possibility that can be carried out from alternative locations like telecentres. Often located in schools and universities, they offer students and the public new sources of information, and constitute important tools for doing research and to facilitate the learning process through the help of trainers. Nonetheless, the major connection between telecentres

⁹ Fonseca Clotilde, "*Mitos y Metas sobre los Usos de las Nuevas Tecnologías en la Educación*", Omar Dengo Foundation, Costa Rica. Remitida al Bureau of International Education, March 2001. p 1.

¹⁰ Ibid. p 6.

¹¹ Fonseca., Op cit.

and education rests on the experiences of schools and universities opening up their computer labs to the public after school hours. Students more easily become telecentre users to do school assignments and research, and on their wake, other users may end up doing likewise.

Housing telecentres in schools is, in fact, one of the strongest promises for the sustainability of telecentres, as long as they are absorbed as part of the education budget. If the expectation is that the telecentre will be a source of income for cash-strapped school, both will be falling into the trap of furthering exclusion by making public services available only to those with ability to pay.

The assumption of improved governance and democracy through e- government

E-Government refers to the use by Government agencies of information technologies that have the ability to transform relations with citizens, business, and other arms of Government creating a wealth of new digital connections¹². Based on the assumption that government is too costly, too inefficient and too ineffective, the implementation of e-governance through three main domains, e-administration, e-services and e-society, is expected to improve government processes, connect citizens and build interactions with and within society, respectively¹³. However, promises of increased efficiency, transparency and participation in government issues must not be solely expected from, or attributed to, the creation of governmental web sites!.

The creation of a proper technological framework for e-government implies the existence of efficient message brokering and system management, as well as the support of a variety of software components such as search capabilities, workflow engines, payment processing and electronic forms¹⁴. Other issues such as access, citizen's training, accountability, equity, security, and access for those with disabilities, are all factors that must be taken into account when analysing the scope and implications of the use of new technologies to improve governance. The human and organizational structure that supports the electronic structure of online government services is crucial.

Additionally, by putting government forms and other information on the Web its possible to produce a "disintermediating" effect, reducing the possibility of public servants and others to illegally charge citizens for access to such information¹⁵. However, the model of "disintermediation" and e-governance is only be feasible for the minority who has access to ICTs in developing countries, making evident the need to create a more inclusive model that responds to the needs and constrains of the great majority that remains in the wrong side of

¹² Richard Heeks refers to these new connections as connections within governments, between government and NGOs/citizens, between government and business/citizens, within and between NGOs, and within and between communities. As a result, the focus grows from just e-administration to also encompass e-citizens, e-services and e-society. Heeks Richard, "*Understanding e-Governance for Development*", Institute for Development Policy and Management, 2001.
http://www.man.ac.uk/idpm/idpm_dp.htm

¹³ Ibid, p 4

¹⁴ "*Realizing e-government*", in Government Technology, Solutions for State and Local Government in the Information Age, November 2001. <http://www.govtech.net/govcenter/solcenter/ezgov10-00/index.phtml>

¹⁵ Heeks, Op cit.

the digital divide. Many developing countries are still in the initial stage of “government online” mainly by posting information on a Web page, as opposed to “networked government” or “digitalized government”, these later being a government which has digitalized its information systems, and that consequently, is able to have an effective connection with citizens and businesses.

Telecentres and e-governance

The telecentres can become key elements of a new “reintermediation” model that allow all of those who are neither owners, nor direct users of ICTs¹⁶ to benefit from the potentials of e-governance. By providing a “human intermediary (the TC operator or facilitator) between the citizen and the growing digital infrastructure of e-governance”¹⁷, they can become the bridge through which to provide not only access to government information, but an effective channel through which the poor and marginalized can express their opinions, voice their needs and solutions, participate in the public debate and in the decision making process.

Therefore, it is crucial to differentiate between having access to the technology, and having the capacity to actually use and appropriate that technology to enhance not only human development, but the ability of the individual to exercise his citizens rights and participate in the broader political context. A recent study of mass connectivity programs in Central America concludes that the digital divide will continue to worsen with the introduction of ICTs, which mainly benefit the most privileged sectors in societies with high levels of¹⁸. At the same time, the telecentres can offer services to local governments by designing and hosting their Web sites, and exploring the use of Geographic Information Systems that allow to gather integrate and analyze vast bodies of data that can be used to tackle environmental problems¹⁹, improving resource use and planning.

The telecentres are often located or planned in government offices, which represent an interesting opportunity in terms future sustainability through their potential absorption by those offices, but also represents a threat to their independent and non-politicised use. In fact, if the telecentres reproduce or represent existent government powers, its ability to transform existent practices and to foment new ways of citizen participation could be significantly constrained.

Rethinking the promise of telecentres for development

After five years of experiments and explorations, Telecentres are coming of age in Latin America and the Caribbean. “In many cases, the telecentre is viewed as a catalyzing force in the community, a focal point where a variety of social actors (educators, government officials, youth, artists and artisans, farmers, women’s groups) can come together and use technology-based tools to seize otherwise non-existent opportunities for improving quality of life at the

¹⁶ Heeks, Op cit. p 9.

¹⁷ Ibid.

¹⁸ Gómez, Ricardo & Martínez, Juliana. “*Central America: Towards a social use of the Internet*”, in Internet... Why? And what for?, Ottawa, San José: IDRC, Acceso, 2001. (Available also in Spanish and French, <http://www.acceso.or.cr/pppp>)

¹⁹ <http://www.panasia.org.sg/irri/agenglish/lesson24/read24.htm>

local level. By providing wide-ranging services, telecentres work to foster and improve upon informal education, training, cultural support and promotion, governance, as well as economic opportunities and productivity."²⁰ Nonetheless, the promise is still far bigger than the evidence supporting it.

Networking telecentres: lessons learned, lessons to learn

The Latin American network of telecentres, Somos@telecentros²¹ has been encouraging a collective space to discuss, strengthen and learn from telecentre experiences in the region. After a series of national meetings followed by a regional workshop in 2001, the single most outstanding conclusion is that there is no true and tested way to ensure the success of a telecentre... the closest thing to a magic formula is the need for community participation, adaptability to the changing local context, and hard work. The magic lamp had no genie, after all.

The experience of Latin American Telecentres demonstrates that a single model of implementation can't be applied uniformly across the region. On the contrary, successful stories have been those based on participatory process through which the community has a participatory involvement in the dynamics of the Telecentres. This type of involvement corresponds with, and contributes to the achievement of the social goal of the Telecentres, namely to address the needs of the community, and to undertake actions based on the use of ICTs in order to improve the quality of life of the population.

One of the major challenges faced by Telecentres in the region is the need to influence local, national and regional policies. The need for governments to rethink the right to communication and information as a human right has been suggested as a way for public policies to address not only connectivity issues, but most importantly to guarantee community access to information and knowledge²².

At the same time, it is necessary to keep emphasising and improving the training component of the Telecentres. On the one hand, the training of operators is essential for the transfer of knowledge and information to the community, and on the other, the training of users is necessary to ensure the effective appropriation of that knowledge²³, as well as the purposeful use of technologies such as the Internet. The Telecentres play, in fact, a key role in promoting the social use of the Web, and in allowing the community to directly benefit from that through the electronic exchange of ideas, experiences, knowledge or technology, that can be applied to their daily activities.

Likewise, the role of the governments is essential for the activities of the Telecentres in terms of providing a clear telecommunications strategy that promotes better connectivity, lower

²⁰ Hunt Patrick, "*True Stories: Telecentres in Latin America & the Caribbean*", in *The Electronic Journal on Information Systems in Developing Countries*, EJISDC, Volume 4, April 2001.

<http://www.is.cityu.edu.hk/Research/ejisd/vol4/v4r5.pdf>. For more information on this Special Edition on Telecentres please visit <http://www.is.cityu.edu.hk/Research/ejisd/vol4.htm>

²¹ Somos Telecentros is a network of telecentres that promotes collective learning, support and networking among telecentre experiences in Latin America and the Caribbean. It is supported by IDRC and coordinated by Fundacion ChasquiNet in Ecuador. <http://www.tele-centros.org>

²² Op cit., Fonseca

²³ Initiatives in Colombia and in Cuba have gone even further, generating their own local content, an education software package for local education. Ibid.

costs, equitable access, and in general, more spaces through which to promote ICTs as tools of social empowerment and participation.

In sum, who benefits from telecentres?

The promotion telecentres that respond to a social vision of ICTs implies programs aimed not at the installation of infrastructure but at the improvement of people's capacity to effectively use ICT resources and combine them with other appropriate forms of communication, implement them as tools to resolve practical problems and improve people's living conditions, as well as provide follow-up and evaluate actions, results, and lessons²⁴.

One of the major dangers derived from the implementation of ICTs, is that they tend to benefit only those who are already in an advantageous situation in terms of income, access and education. Thus far, the majority of Internet users in developing countries correspond precisely to a minority of while males, middle age, high income, and somewhat English proficient²⁵, meanwhile the marginalization of poor sectors of the population, especially women, continues to be major challenge yet to overcome if ICTs are to contribute in the achievement of development and social inclusion. Without adopting a more social focus by prioritizing equitable access, meaningful use and social appropriation of ICTs, the digital divide will continue mirroring the social divide that characterises the exclusion and marginalization of developing societies.

The adoption of Internet and communication technologies has proved to have very positive repercussions in some instances. Improved access to education opportunities, increased transparency and efficiency on Government services, increased trade and marketing opportunities for marginalized communities, increased community access and empowerment through access to information, and new employment opportunities are only some of the successful examples that have ratified the belief that these technologies can actually play a key role in development.

However, the extent to which these technologies can effectively promote development must be clearly understood. Although they, in fact, can constitute key tools for development, their role complements alternative strategies of development put in place by governments, and reinforced by other actors such as the private sector and the civil society organizations. Just as their potential doesn't translate in equal opportunities for all the sectors of the population, one must be cautious in concluding that problems of access, connectivity, training and appropriation in developing regions will be automatically solved by the market logic that has prevailed in the growing trend of world wide communication and information technologies.

Telecentres initiatives throughout the region have demonstrated the importance of participatory strategies that allow community involvement in the process of adoption and implementation of ICTs for development. Community access through Telecentres has, in fact, allowed the benefits of the Internet to reach a broader range of users, specially among the poor and marginalized that otherwise wouldn't have the opportunity to participate in the information age.

²⁴ Gomez and Martinez, "Central America: Towards a social use of the Internet" *Op cit.*

²⁵ Gómez, Ricardo. "The Hall of Mirrors: The Internet in Latin America", *Current History, A Journal of Contemporary World Affairs*, <http://www.currenthistory.com>, Feb 2000, pgs. 72-77. http://www.idrc.ca/pan/pubhall_e.htm, reprinted as « La galerie des glaces, ou Internet en Amérique latine » by Le Devoir, Montreal, July 18, 19 & 20, 2001, <http://www.ledevoir.com>.

However, the experience has also demonstrated that Telecentres are not enough to reduce the digital divide or to guarantee greater participation of those communities involved. Efforts still have to be directed towards training and infrastructure, towards public policies that support favourable legislation, increased community involvement and participation, towards more alliances between the private, public and civil society sectors in order to guarantee sustainability, towards the involvement of women, and all social actors that can contribute to and benefit from this initiatives.

If telecentres are to be of any service to human development, their focus cannot be solely on the technological aspects of connectivity, but rather on the broader social context and the meaningful use of the communication resources for human development.

As we have seen, promoting development involves more than facilitating access to needed devices and services. It also implies an effort to shape broader structures of opportunity in ways that further social and economic progress. Aspects such as enabling policy environments, equitable access opportunities, and most importantly, effective, knowledgeable, and critical use of the available tools are the foundations from which the Internet can become a tool for social development in Latin America. The Internet itself doesn't constitute the cure to problems such as social equity, civil participation or democratization, but it can, under the right circumstances, become a key component of a more comprehensive strategy of development that should address, among others, the huge economic and social disparities that limit the potential of innovation and technological change in Latin American countries.